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10/711,108	08/24/2004	Charles Steven Korman	147903-1	5107

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER	
TRINH, THANH TRUC	

ART UNIT	PAPER NUMBER
1795	

NOTIFICATION DATE	DELIVERY MODE
03/05/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/711,108	KORMAN, CHARLES STEVEN	
	Examiner	Art Unit	
	THANH-TRUC TRINH	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/24/2004, 12/22/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

On page 4 paragraph 20 at line 3, term "Figure 2" should be changed to "Figure 3".

On page 6 paragraph 26 at line 5, term "Figure 1" should be changed to "Figure 2".

On page 6 paragraph 26 at line 8, there is no reflective coating 66 in Figure 4.

On page 6 paragraph 27 at line 6, there is no uniform saw tooth pitch illustrated in Figure 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 4, 10-11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites term "electrically receptive for mounting a solar cell" at line 4. It is unclear as to what would make a metal foil "electrically receptive for mounting a solar cell".

Claim 1 at line 5, the term "metal foil including a light concentrator" is indefinite because the metal foil does not "concentrate" or converge light onto one specific region, but rather reflects light back. It is suggested to be changed to "metal foil including a light reflector".

Claim 4 recites term "proximate edges defining peripheral edges" in line 2. It is unclear what "edges" are referred to.

Claim 10 recites limitation "heat generated by at least one of said solar cells and absorbed solar radiation internal to said module is channeled to an edge defining said module via said metal foil" at lines 1-3. The claim language is unclear as to what is channeled, the heat generated by solar cells or the absorbed solar radiation internal to the module; and where is "the heat" or "the radiation" channeled to, the edges of the module or the module which is defined by the edges.

Claim 11 is rejected because it depends on claim 10 and recites term "edge defining said module" at line 1.

Claim 13 recites limitation "said edges" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3 and 7-12, 15-17 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kardauskas (US Patent 5994641).

Regarding claim 1, as seen in Figures 3-5, Kardauskas discloses a photovoltaic laminate backplane assembly comprising an insulative substrate (22 of reflective material 20, Figure 3); a metal foil (24 of reflective material 20, Figure 3) bonded to the insulative substrate on a first surface and electrically receptive for mounting a solar cell (4, Figure 5) on a second surface opposite the first surface, wherein the metal foil including a light concentrator (or grooves for reflecting light as seen in Figure 3) disposed at exposed regions (or land areas 30A, 30B and 30C as seen in Figure 4) on the second surface of the metal foil. The light concentrator (or grooves) is configured to reflect incident light thereon to the solar cell to increase a concentration of light on the solar cell. (See col. 5 line 33 through col. 8 line 44). Kardauskas teaches all structural limitations of the instant claim, therefore it is the Examiner's position that the light concentrator (or grooves for reflecting light) of Kardauskas is configured to reflect incident light thereon to the solar cell to increase the concentration of light on the solar cell in a range of about 1.5X to about 4X.

Regarding claims 2-3, Kardauskas teaches the substrate 22 is made of flexible thermoplastic (See col. 6 line 49 to col. 8 line 8). Therefore it is the Examiner's position that the substrate (22) comprises a flexible polymer.

Regarding claim 7, Kardauskas teaches the metal foil (or metal film 24) is aluminum or silver. (See col. 4 lines 9-53, col. 7 line 3 to col. 8 line 8).

Regarding claim 8, as seen in Figure 5, Kardauskas teaches a sheet of reflective material 20A placed under the array of solar cells, wherein each of the reflective material sheet comprises the metal foil (24) as seen in Figure 3. Therefore, it is the Examiner's position that the metal foil (24) is patterned to match at least an interconnection configuration of the solar cell and a photovoltaic laminate module (or the array of solar cells).

Regarding claims 9-10, Kardauskas teaches the metal foil (24) is made of conductive metal such as aluminum or silver and placed under the array of solar cells (See Figures 3-5, col. 4 lines 9-53, col. 7 line 3 to col. 8 line 44). Therefore it is the Examiner's position that the metal foil (24) of Kardauskas is configured to provide a low resistance interconnection of a plurality of solar cells while providing a thermal sink for heat generated by each cell. It is also the Examiner's position that heat generated by at least one of the solar cells and absorbed solar radiation internal to the module are channeled to an edge (30D as seen in Figure 4) defining the module via the metal foil, since the metal foil contains conductive metal (such as aluminum or silver) and is placed under the solar cells array.

Regarding claim 11, as seen in Figures 3-5, Kardauskas teaches the edge (30D as seen in figure 4) defining the module (or array of solar cells as seen in Figures 4-5) comprising grooves (26, Figure 3) of metal (24, Figure 3) to reflect light. Therefore it is the Examiner's position that the edge defining module is configured to dissipate generated heat by radiation and convection.

Regarding claim 12, Kardauskas teaches the metal foil (24) is made of conductive metal such as aluminum or silver, and functions to reflect light. (See Figures 3-5, col. 4 lines 9-53, col. 7 line 3 to col. 8 line 44). Therefore it is the Examiner's position that the metal foil (24) functions as an electrical conductor, thermal conductor and an optical reflector.

Regarding claim 15, as seen in Figures 3-5, Kardauskas teaches a solar cell laminate assembly comprising a plurality of solar cells (4, Figures 4-5) each having a first side and a second side and configured to produce an electrical current when receiving photons on at least the first side; an encapsulant (14, Figure 5) coupled to the first side of each of the plurality of solar cells; an insulative substrate (22 of reflective material 20 as seen in Figure 3, or of reflective material 20A as seen in Figure 5) coupled to the second side of each of the plurality of solar cells; and metal foil (24, Figure 3) bonded to the insulative substrate on a first surface and electrically receptive for mounting a solar cell on a second surface opposite the first surface, wherein the metal foil includes a light concentrator disposed at exposed regions on the second surface of the metal foil and configured to reflect incident light thereon to each solar cell. Kardauskas teaches all structural limitations of the instant claim, therefore it is the Examiner's position that the light concentrator (or grooves for reflecting light) of Kardauskas is configured to reflect incident light thereon to the solar cell to increase the concentration of light on the solar cell in a range of about 1.5X to about 4X.

Regarding claims 16-17, Kardauskas teaches the substrate 22 is made of flexible thermoplastic (See col. 6 line 49 to col. 8 line 8). Therefore it is the Examiner's position that the substrate (22) comprises a flexible polymer.

Regarding claim 21, Kardauskas teaches the metal foil (or metal film 24) is aluminum or silver. (See col. 4 lines 9-53, col. 7 line 3 to col. 8 line 8).

Regarding claim 22, as seen in Figure 5, Kardauskas teaches a sheet of reflective material 20A placed under the array of solar cells, wherein each of the reflective material sheet comprises the metal foil (24) as seen in Figure 3. Therefore, it is the Examiner's position that the metal foil (24) is patterned to match at least an interconnection configuration of the solar cell and a photovoltaic laminate module (or the array of solar cells).

Regarding claims 23-24, Kardauskas teaches the metal foil (24) is made of conductive metal such as aluminum or silver and placed under the array of solar cells (See Figures 3-5, col. 4 lines 9-53, col. 7 line 3 to col. 8 line 44). Therefore it is the Examiner's position that the metal foil (24) of Kardauskas is configured to provide a low resistance interconnection of a plurality of solar cells while providing a thermal sink for heat generated by each solar cell. It is also the Examiner's position that heat generated by the plurality of solar cells and absorbed solar radiation internal to the module are channeled to an edge (30D as seen in Figure 4) defining the module via the metal foil, since the metal foil contains conductive metal (such as aluminum or silver) and is placed under the solar cells array.

Regarding claim 25, as seen in Figures 3-5, Kardauskas teaches the edge (30D as seen in figure 4) defining the module (or array of solar cells as seen in Figures 4-5) comprising grooves (26, Figure 3) of metal (24, Figure 3) to reflect light. Therefore it is the Examiner's position that the edge defining module is configured to dissipate generated heat by radiation and convection.

Regarding claim 26, Kardauskas teaches the metal foil (24) is made of conductive metal such as aluminum or silver, and functions to reflect light. (See Figures 3-5, col. 4 lines 9-53, col. 7 line 3 to col. 8 line 44). Therefore it is the Examiner's position that the metal foil (24) functions as an electrical conductor, thermal conductor and an optical reflector.

4. Claims 1-3, 7-12, 15-17 and 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Cole (US Patent 6009449).

Regarding claim 1, as seen in Figure 5, Cole discloses a photovoltaic laminate backplane assembly comprising an insulative substrate (26); a metal foil (or reflective layer 48) bonded to the insulative substrate on a first surface and electrically receptive for mounting a solar cell (22) on a second surface opposite the first surface, wherein the metal foil including a light concentrator (patterned regions between solar cells 22) disposed at exposed regions on the second surface of the metal foil, the light concentrator configured to reflect incident light thereon to the solar cell (See Figures 1, 3 and 5; col. 9 lines 22-67; col. 5 lines 54-56). Coles teaches all structural limitations of the instant claim, therefore it is the Examiner's position that the light concentrator (or patterned regions) of Cole

is configured to reflect incident light thereon to the solar cell to increase the concentration of light on the solar cell in a range of about 1.5X to about 4X.

Regarding claims 2-3, Cole teaches the substrate (26) is made of acrylic decal (See col. 5 lines 23-26). Therefore it is the Examiner's position that the substrate comprises a flexible polymeric substrate.

Regarding claim 7, Cole teaches the metal foil (or metallic reflective layer 48) is made of electrically conductive metal (See col. 5 lines 54-56 and col. 9 lines 22-67). Coles also teaches the material used is low cost (See col. 3 line 54 to col. 4 line 44). Therefore it is the Examiner's position that metal foil is a conductive metal foil selected on a basis of cost, electrical and thermal performance.

Regarding claim 8, Cole teaches the metal foil (or metallic reflective layer 48) is electrically conductive and bonded directly to the substrate of the solar cells at a bond site 72b. (See Figure 5 and col. 9 lines 22-46). Therefore it is the Examiner's position that the metal foil (or metallic reflective layer 48) is patterned to match at least an interconnection configuration of the solar cell and a PV laminate module.

Regarding claims 9-12, Cole teaches the metal foil (or metallic reflective layer 48) is made of metal and electrically conductive (See col. 5 lines 54-56 and col. 9 lines 22-67). Therefore it is the Examiner's position that the metal foil (or metallic reflective layer 48) is configured to provide a low resistance interconnection of a plurality of solar cells while providing a thermal sink for heat generated by each cell, the heat generated by at least one of the solar cells and

absorbed solar radiation internal to the module is channeled to an edge defining module via the metal foil, and the edge defining module is configured to dissipate the generated heat by one of radiation and convection. It is also the position of the Examiner's that the metal foil (or metallic reflective layer 48) functions as an electrical conductor, thermal conductor, and an optical reflector.

Regarding claim 15, as seen in Figure 5, Cole teaches a solar cell laminate assembly comprising a plurality of solar cells (22 such as 22a, 22b...) each having a first side and a second side, each of said plurality solar cells configured to produce an electrical current when receiving photons on at least the first side; an encapsulant (support layer 28) operably couple to the first side of each of said plurality of solar cells; an insulative substrate (26) operably coupled to the second side of each of the plurality of solar cells; and a metal foil (metallic reflective layer 48) bonded to the insulative substrate on a first surface and electrically receptive for mounting a solar cell on a second surface opposite said first surface, wherein the metal foil includes a light concentrator (or portion with patterned surface) disposed at exposed regions on the said second surface of the metal foil. Coles teaches all structural limitations of the instant claim, therefore it is the Examiner's position that the light concentrator (or patterned regions) of Cole is configured to reflect incident light thereon to the solar cell to increase the concentration of light on the solar cell in a range of about 1.5X to about 4X.

Regarding claims 16-17, Cole teaches the substrate (26) is made of acrylic decal (See col. 5 lines 23-26). Therefore it is the Examiner's position that the substrate comprises a flexible polymeric substrate.

Regarding claim 21, Cole teaches the metal foil (or metallic reflective layer 48) is made of electrically conductive metal (See col. 5 lines 54-56 and col. 9 lines 22-67). Coles also teaches the material used is low cost (See col. 3 line 54 to col. 4 line 44). Therefore it is the Examiner's position that metal foil is a conductive metal foil selected on a basis of cost, electrical and thermal performance.

Regarding claim 22, Cole teaches the metal foil (or metallic reflective layer 48) is electrically conductive and bonded directly to the substrate of the solar cells at a bond site 72b. (See Figure 5 and col. 9 lines 22-46). Therefore it is the Examiner's position that the metal foil (or metallic reflective layer 48) is patterned to match at least an interconnection configuration of the solar cell and a PV laminate module.

Regarding claims 23-26, Cole teaches the metal foil (or metallic reflective layer 48) is made of metal and electrically conductive (See col. 5 lines 54-56 and col. 9 lines 22-67). Therefore it is the Examiner's position that the metal foil (or metallic reflective layer 48) is configured to provide a low resistance interconnection of a plurality of solar cells while providing a thermal sink for heat generated by each cell, the heat generated by at least one of the solar cells and absorbed solar radiation internal to the module is channeled to an edge defining module via the metal foil, and the edge defining module is configured to dissipate

the generated heat by one of radiation and convection. It is also the position of the Examiner's that the metal foil (or metallic reflective layer 48) functions as an electrical conductor, thermal conductor, and an optical reflector.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 4-6, 13, 18-20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kardauskas (US Patent 5994641) in view of Epstein et al. (US Patent Application 20030058553).

Kardauskas teaches a photovoltaic assembly as described in claims 1 and 15.

Kardauskas does not teach coating the metal foil (24) with a reflective coating such as reflective ink of glass spheres in an optically transparent binder.

Epstein et al teaches a light directing film (or for reflecting light) having metal coating film (130 in Figure 3, 230 in Figure 5) on a patterned surface (114 in Figure 3, 214 in Figure 5), wherein the metal coating film is overlain by a layer (135 in Figure 3 and 235 in Figure 5) of glass beads in polymethyl-methacrylate (136 in Figure 3 and 236 in Figure 5). (See paragraphs 0101-0107 and 0112-0118). It is the Examiner's position that polymethyl-methacrylate is an optically transparent binder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly of Kardauskas by coating the metal layer (or metal foil 24) with a reflective ink of ink of glass beads (or colloidal suspension of glass spheres) in polymethyl-methacrylate (or optically transparent binder) as taught by Epstein et al., because Epstein et al. teaches that the glass beads in polymethyl-methacrylate layer would improve the performance and durability of the reflective metal coating (See paragraphs 0083-0088). In addition, because both Kardauskas and Epstein et al are concerning with reflecting light, one would have reasonable expectation of success from the combination.

6. Claims 14 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kardauskas (US Patent 5994641) in view of Glenn (US Patent 6313396).

Kardauskas teaches a photovoltaic assembly as described in claims 1 and 15.

Kardauskas does not teach the substrate includes a plurality of metallized vias to allow dissipation of heat therethrough.

Glenn teaches a photovoltaic assembly having a substrate (18, Figures 1, 3A-B, 4-5) with vias (or openings 22 as seen in Figure 22) filled with metal (conducting element 17- See Figures 1, 3A-B, 4-5; col. 4 line 10 through col. 6 line 44). Therefore it is the position of the Examiner that Glenn teaches a substrate includes a plurality of metallized vias to allow dissipation of heat therethrough.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly of Kardauskas to include a plurality of metallized vias to allow dissipation of heat therethrough as taught by Glenn, because Glenn teaches the photovoltaic assembly with such substrate is lightweight and inexpensive to manufacture. (See col. 8 lines 63-67).

7. Claims 4-6, 13, 18-20 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole (US Patent 6008449) in view of Epstein et al. (US Patent Application 20030058553).

Cole teaches a photovoltaic assembly as described in claims 1 and 15.

Cole does not teach coating the metal foil (24) with a reflective coating such as reflective ink of colloidal of glass spheres in an optical transparent binder.

Epstein et al teaches a light directing film (or for reflecting light) having metal coating film (130 in Figure 3, 230 in Figure 5) on a patterned surface (114

in Figure 3, 214 in Figure 5), wherein the metal coating film is overlain by a layer (135 in Figure 3 and 235 in Figure 5) of glass beads in polymethyl-methacrylate (136 in Figure 3 and 236 in Figure 5). (See paragraphs 0101-0107 and 0112-0118). It is the Examiner's position that polymethyl-methacrylate is an optically transparent binder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly of Cole by coating the metal layer (or metal foil 24) with a reflective ink of ink of glass beads (or colloidal suspension of glass spheres) in polymethyl-methacrylate (or optically transparent binder) as taught by Epstein et al., because Epstein et al. teaches that the glass beads in polymethyl-methacrylate layer would improve the performance and durability of the reflective metal coating (See paragraphs 0083-0088). In addition, because both Cole and Epstein et al are concerning with reflecting light, one would have reasonable expectation of success from the combination.

8. Claims 14 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cole (US Patent 6008449) in view of Glenn (US Patent 6313396).

Cole teaches a photovoltaic assembly as described in claims 1 and 15.

Cole does not teach the substrate includes a plurality of metallized vias to allow dissipation of heat therethrough.

Glenn teaches a photovoltaic assembly having a substrate (18, Figures 1, 3A-B, 4-5) with vias (or openings 22 as seen in Figure 22) filled with metal

(conducting element 17- See Figures 1, 3A-B, 4-5; col. 4 line 10 through col. 6 line 44). Therefore it is the position of the Examiner that Glenn teaches a substrate includes a plurality of metallized vias to allow dissipation of heat therethrough.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the assembly of Cole to include a plurality of metallized vias to allow dissipation of heat therethrough as taught by Glenn, because Glenn teaches the photovoltaic assembly with such substrate is lightweight and inexpensive to manufacture. (See col. 8 lines 63-67).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to THANH-TRUC TRINH whose telephone number is (571)272-6594. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nam X Nguyen/
Supervisory Patent Examiner, Art Unit 1753

TT
2/23/2008